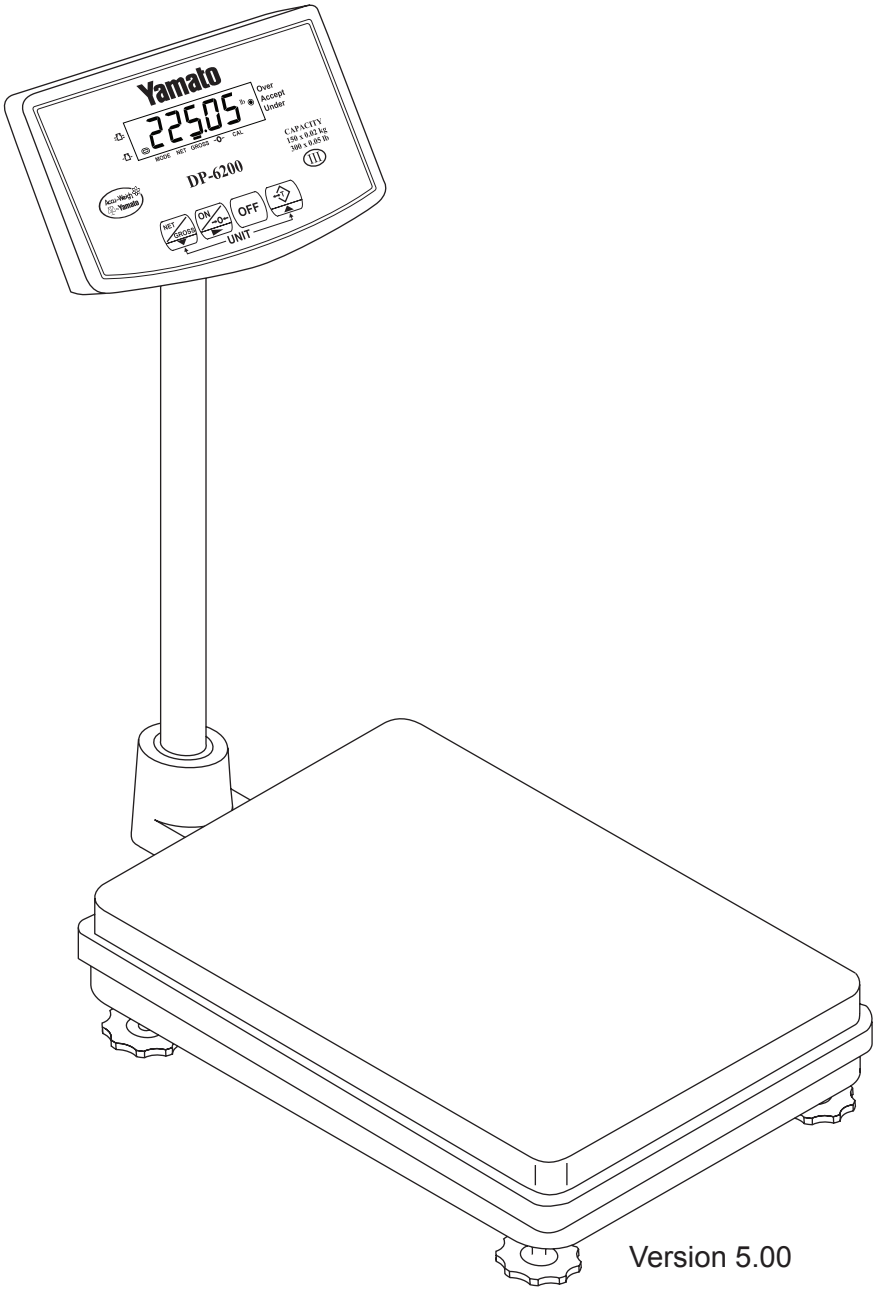
DP-6200 Operation Manual



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DP-6200 Operation Manual

Table of Contents

I. Safety Instructions ____ 1

II. Description ____ 2
- Name and Function of Parts
- Specifications

III. Setup ____ 5
- Assembling the Scale
- Adjusting the Indicator Angle
- Leveling the Scale
- Installing Batteries or AC Adaptor

IV. Directions for Use ____ 7
- Turning the Scale On and Off
- Checking the Battery Level
- Zero the Display
- Switching Units
- The CAL Indicator
- Setting the Over/Under Indicator

V. Weighing ____ 9
- Using the Over/Under Indicator
- Gross Weighing
- Net Weighing
- Batching

VI. Troubleshooting and Error Messages ____ 11

VII. User Parameters ____ 13
- Setting the User Parameters
- User Parameter Table

I Safety Instructions

Before using the scale, carefully read, understand, and follow the “Safety Instructions” described in this manual. Observe the advice given in the “Directions for Use” section to ensure proper operation. Keep this operation manual handy for reference.

To prevent injury

1) DO NOT SHOCK LOAD the scale, Never step on or sit on the scale. Not only will the scale be damaged, but you may also be injured.
2) DO NOT APPLY DIRECT WATER SPRAY to the scale if it is powered by an AC adaptor!! You could receive a shock. The scale is not washdown unless the AC jack is plugged with a water-tight seal.
4) Do not operate the scale if there is smoke or a burnt smell coming from the scale. Remove the batteries or unplug the AC adaptor immediately. After making sure that there is no danger, consult your dealer. **Never try to repair the scale by yourself.**
5) This scale is **not** an explosion-proof model. Do not use the scale in an atmosphere containing flammable gases or explosive fumes. A fire or an explosion can result.
6) Place the item to be weighed in the center of the platform. Items placed on the edge of the platform may fall off and cause injury.
7) When weighing a heavy, large or unbalanced item, make sure the item is stable on the platform, otherwise an accident may occur.
8) When carrying or moving the scale, be sure to hold it by the bottom of the weighing platform with both hands. If you hold it by the column, the column may become detached causing the scale to fall. This will damage the scale and could cause injury.
9) Do not insert your finger into the gap or holes in the scale. You may be injured.
10) The DP-6200 uses a liquid crystal display. If the LCD breaks and the liquid leaks from the LCD, do not touch it with your fingers. The liquid is toxic if ingested. Be especially careful around small children.

To prevent damage to the scale

1) Do not push the indicator or keys with sharp objects. They may break or puncture the switch membrane panel.
2) Use the specified power supply and choose a suitable environment. If you do not, the weight readings may be inaccurate and the scale may be damaged.
3) The scale is a sensitive weighing instrument, avoid physical shocks. If you drop something on the scale, overload the scale, step on the platform, or drop the scale, the scale may be damaged and lose accuracy.
4) If the scale becomes dirty, wipe it with a soft cloth. For stubborn stains, apply a little neutral detergent and then wipe the scale with a dry cloth. Do not use thinner, benzene, hot water, or chemical agents, all of which can cause deformation, discoloration, or deterioration of the scale.
5) Never remove the case. The fine adjustment section may be damaged and you may be injured by sharp edges on the internal parts.
6) Do not place the scale upside down.
7) When the low battery indicator appears, replace all six of the batteries. When installing the batteries, install them according to the polarity markings in the case (+, -). If the scale will not be used for a long period, remove the batteries.
8) Never connect or disconnect the RS-232 cable while the DP-6200 and a connected computer are on. The DP-6200 and/or the computer may be damaged. RS-232 ports are not hot-swappable.

To keep the scale working efficiently

1) Place the scale on a flat stable surface that will support the scale and the load.
2) Do not place the scale in an area exposed to direct sunlight or to wind currents from an air conditioner, otherwise, the measurements will not be accurate.
3) Do not place the scale near machines that create vibrations or electromagnetic disturbance, such as microwave ovens, portable phones, or large motors. This will affect the accuracy.
4) The operating temperature range is from –5°C to +35°C (23°F to 95°F). Do not subject the scale to sudden temperature changes; allow the scale to adjust to the new temperature before use.
5) If the scale is sealed, do not break the seal. If you break the seal, the scale will not be considered legal for trade. In this case, contact your dealer.
6) Do not disassemble or modify the scale, you will void the warranty. Modified scales will not be legal for trade.

II Description

Name and Function of Parts

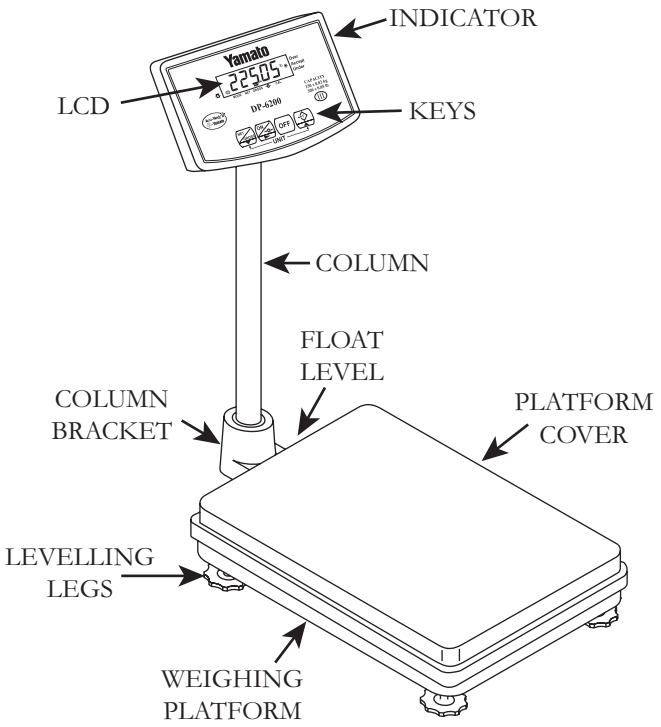


FIG. 1

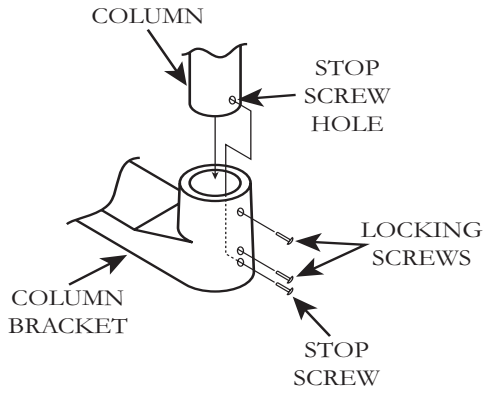


FIG. 2

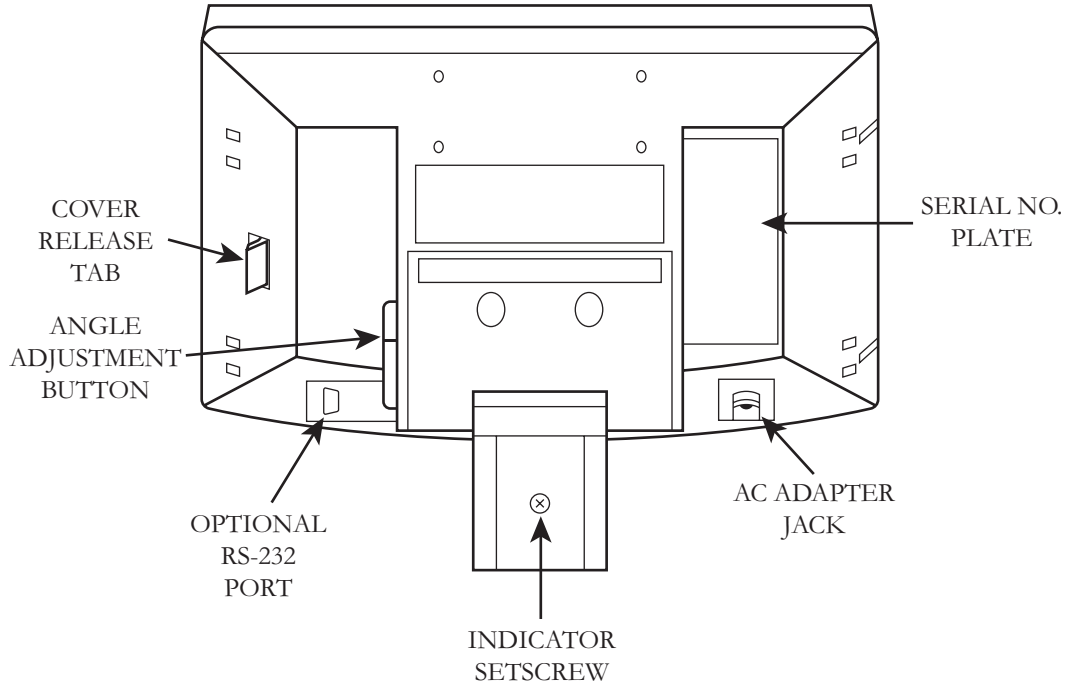


FIG. 3

II Description

Name and Function of Parts

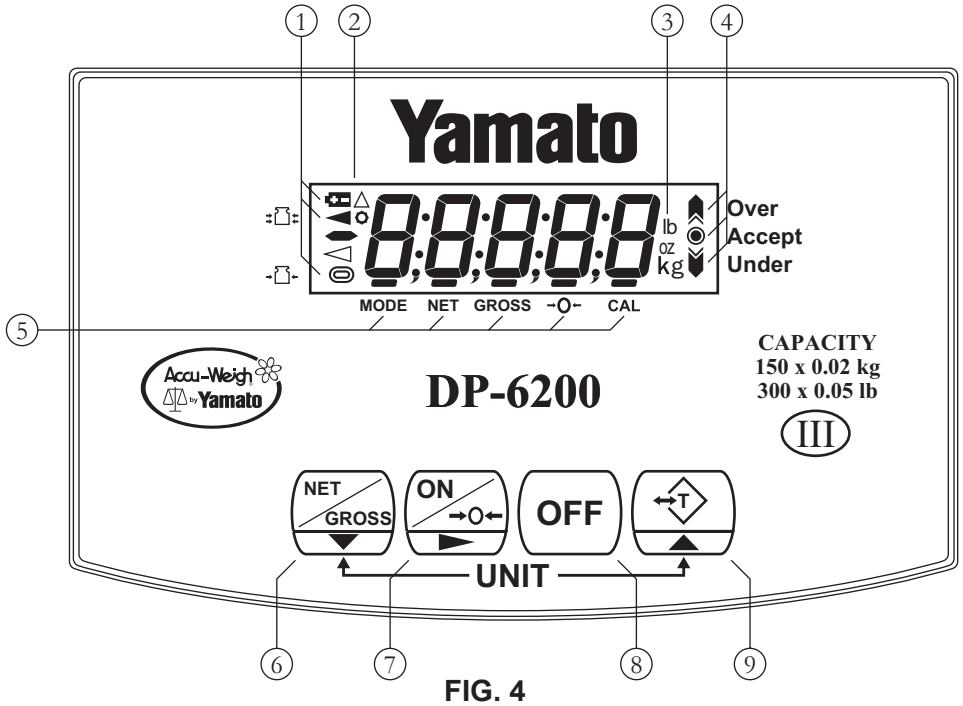


FIG. 4

1)		Low Battery Indicator	Time to replace the batteries.
		Hold Indicator	The scale is in Hold mode (not legal-for-trade).
		Test/Cal Mode Indicator	The scale is in Test or Calibration Mode.
		Stable Indicator	Indicates the weight indication is stabilized.
2)		LCD Display	Shows all scale indications and weight readings.
3)		Unit Indication	KG, LB, OZ and LB-OZ (not legal-for-trade).
4)		Over Indicator	The current weight is over the user's maximum setpoint.
		Accept Indicator	The current weight is within the user's setpoints.
		Under Indicator	The current weight is below the user's minimum setpoint.
5)	MODE	Mode Indicator	The scale is in setup mode.
	NET	Net Indicator	The scale is indicating net weight.
	GROSS	Gross Indicator	The scale is indicating gross weight.
	-O-	Center of Zero Indicator	The scale is at gross zero.
	CAL	CAL Indicator	The scale is not sealed for legal for trade operation.
6)		Net/Gross Key	Toggles between gross and net weight readings.
		Decrease Key	Decreases setpoints.
		Unit Selection Key	Press both keys simultaneously to toggle between kilogram and either pound, ounce or pound-ounce units.
7)		On/Zero Key	Turns the power on, and zeroes the display.
		Next Key	Moves to the next setpoint.
8)		Off Key	Turns the power off.
9)		Tare Key	Tares off the current weight.
		Increase Key	Increases setpoints.
		Unit Selection Key	Press both keys simultaneously to toggle between kilogram and either pound, ounce or pound-ounce units.

II Description

Specifications

Weighing system:	Strain-gauge load cell
Platform:	13.8” x 19.7” (350 x 500 mm), stainless steel
Weight display:	Single face display
Type:	7 segment LCD
Character size, etc.:	0.5” (12 mm) (W) x 0.9” (23 mm) (H), 5 digits
Optional equipment:	Batteries, AC adaptor, RS-232C communications (the scale is not washdown with the RS-232C option installed.)
Power supply:	9V DC - six “D” size batteries or AC adaptor (the scale is not washdown unless the AC jack is plugged with a water-tight seal).
Consumption:	0.12 W (max.)
Battery life:	600 hours of continuous use with alkaline batteries. Using the RS-232C option will substantially reduce battery life.
Operating temperature:	23°F to 95°F (-5°C to 35°C)
Operating humidity:	25% to 85% RH
Waterproof classification:	Complies with NEMA 4 (washdown) when the AC jack is plugged with a water-tight seal. Is not washdown with the RS-232C option installed.

Capacities and divisions:

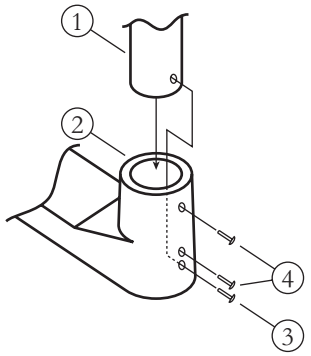
Kilogram	Pound	Ounce	Pound-Ounce*
30 kg x 0.01 kg	60 lb x 0.02	960 oz x 0.5 oz	60 lb x 0.5 oz
60 kg x 0.02 kg	150 lb x 0.05 lb	2400 oz x 1 oz	150 lb x 1 oz
150 kg x 0.05 kg	300 lb x 0.1 lb	4800 oz x 2 oz	300 lb x 2 oz

* Combined units, such as pound-ounce, are not legal-for-trade.

III Setup

Assembling the Scale

Seat the column (1) firmly in the column bracket (2) . It may be necessary to loosen the stop (3) and locking (4) screws. Align the stop screw hole in the column with the stop screw and tighten. The stop screw must enter the stop screw hole for a secure column mount. Tighten the two locking screws.

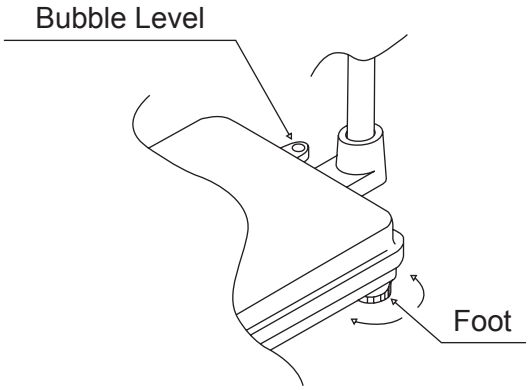


Adjusting the Indicator Angle

Loosen the indicator set screw, rotate the indicator right or left to the desired position and tighten the set screw. Press the angle adjustment button, tilt the indicator up or down to the desired position and release the button.

Leveling the Scale

Place the scale on a flat and level surface. There is a bubble level indicator next to the column bracket. The bubble should be in the center of the circle. Adjust the trim by turning the feet in or out to lower or raise the corner of the scale the foot is on. When the scale is level, tighten the lock nuts on each foot and recheck the level. If the scale is not level, the readings may not be accurate.



Installing Batteries or AC Adaptor

Open the indicator housing by pulling the release tab (located to the right on the back of the indicator) forward and swinging the front panel of the indicator housing forward and left. Install six “D” size alkaline batteries observing the polarity markings inside the battery case.

Use only the AC adaptor specified for use with the scale. Using the wrong adaptor can damage the scale. Insert the adaptor plug securely into the jack on the back of the indicator.
WARNING! The DP-6200 is not washdown unless the AC adaptor jack is plugged with a watertight seal.

III Setup

Connecting the RS-232C Option

With the DP-6200 and the device it is being connected to both powered off, connect the DB-9 (F) end of the cable to the DB-9 (M) port on the back of the indicator housing. Connect the other end of the cable to the serial port on the other device (i.e. - computer, printer, etc.) To connect the DP-6200 to a PC, use a DB-9 (F/F) straight thru cable. Do NOT use a null modem cable. Power on the DP-6200 and configure User Parameters 03 to 08 as desired for your serial communications (see section VII User Parameters.) Configure the connecting device to the same serial settings according to the manufacturer's instructions. The default RS-232 settings for the DP-6200 are:

Keyword	Default	Function	Description
03	001	Communication	Specified commands acceptable
04	000	Communication Data	Net weight (1 batch)
05	000	Communication Speed	9600 bps
06	000	Character Length	8 bits
07	002	Parity	Even
08	001	Stop Bit Length	2 bits

*** * * WARNING * * ***

RS-232 is not a hot swappable connection. Connecting or disconnecting the serial cable while the DP-6200 and/or the serial device are powered on can damage the circuits of either device. Power off both the DP-6200 and the serial device before connecting or disconnecting the serial cable.

IV Directions for Use

Turning the Scale On and Off

Remove everything from the platform surface and press the

key. The display will briefly flash all segments of the LCD. After approximately 5 seconds, the display will stop flashing and automatically set to zero. Press the

key to turn the scale off.

Checking the Battery Level

Turn the scale on and push the

key while the display is flashing. The remaining battery life will be displayed. The more “o”s that appear, the more life there is left in the batteries. After a few seconds, the scale will start normally.

Zero the Display

The scale will zero automatically when turned on. If a value is displayed when the platform is empty, push the

key to zero the display. The maximum zero range during power up is approximately ± 1.9% of the scale capacity.

Switching Units

To switch between kilogram and either pound, ounce or pound-ounce units, press and hold the

key and press the

key.

The CAL Indicator

If the CAL indicator is visible, the DP-6200 has not been configured to be sealed for legal for trade use. System parameter 40 must be set to 003 for all legal for trade applications. For instructions on changing the system parameters, please see section IV Changing the Scale Setup in the DP-6200 Technical Manual.

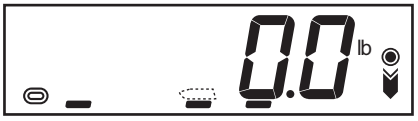
IV Directions for Use

Setting the Over/Under Indicator

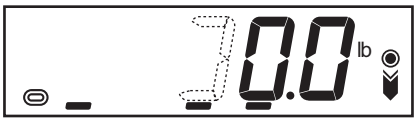
1) Place the scale in normal weighing mode.

2) Press and hold the ON key and push the NET/GROSS key (yellow tabs).

3) Press the ON key to select the digit you want to change. The flashing underscore will advance to the right.



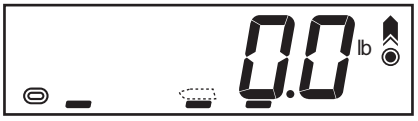
4) Press the up and down arrows to select the desired value.



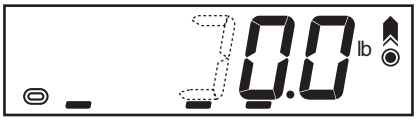
5) Repeat steps 3 and 4 until all digits are set. All values below this setpoint will be indicated as under.

6) Press and hold the ON key and push the NET/GROSS key (yellow tabs). This saves the lower limit and moves to the upper limit.

7) Press the ON key to select the digit you want to change.



8) Press the up and down arrows to select the desired value.



9) Repeat steps 7 and 8 until all digits are set. All values above this setpoint will be indicated as over.

10) Press and hold the ON key and push the NET/GROSS key (yellow tabs). This saves the upper limit and returns the scale to normal weighing mode.

To disable the Over/Under indicator, set both setpoints to zero.

V Weighing

Using the Over/Under Indicator

1) Begin with no load on the scale, the display reading zero, and the center of zero and stable indicators lit. The small up and down arrowheads on the right side of the display indicate that the over and under setpoints, respectively, have been set.

2) Place the item(s) to be weighed on the scale platform. If the item weighs less than the under setpoint, the large under arrow will appear.

3) If the item weighs from the lower setpoint to the upper setpoint, inclusive, the accept bullseye will appear.

4) If the item weighs more than the upper setpoint, the large over arrow will appear.

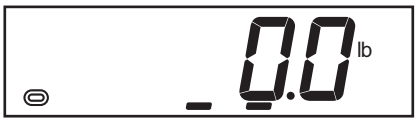
Gross Weighing

1) Begin with no load on the scale, the display reading zero, and the center of zero, stable and gross indicators lit.

2) Place the item(s) to weighed on the scale platform and wait for stable indication. The weight displayed will be the gross weight.

Net Weighing

1) Begin with no load on the scale, the display reading zero, and the center of zero, stable and gross indicators lit.



2) Place an empty container on the scale platform and press the key. The weight of the container will be deducted automatically, the display will read zero and the net indicator will light.

3) Place the item(s) to be weighed in the container. The weight displayed will be the net weight.
CAUTION! The total gross weight should not exceed the capacity of the scale. This can damage the load cell.

V Weighing

Net Weighing (cont'd.)

4) To display the gross weight, press the NET/GROSS key. The gross indicator will light and the weight displayed will be the gross weight of the item(s) and the container. Press the NET/GROSS key again to return to the net weight.

5) To return to gross weighing mode, remove all items from the scale platform and press the →T key.

Batching

1) Begin with no load on the scale, the display reading zero, and the center of zero, stable and gross indicators lit.

2) Place an empty container on the scale platform and press the →T key. The weight of the container will be deducted automatically, the display will read zero and the net indicator will light.

3) Place the first item in the container until the desired weight is reached.

4) Press the →T key and the display will return to zero. Place the next item in the container until the desired weight is reached.

5) Continue in this manner until all items to be batched have been weighed.
CAUTION! The total gross weight should not exceed the capacity of the scale. This can damage the load cell.

6) To return to gross weighing mode, remove all items from the scale platform and press the →T key.

VI Troubleshooting and Error Messages

The scale can check various functions automatically. When a problem is detected, the following messages will be displayed. If you take the steps described below but the problem is not fixed, the scale needs to be calibrated or serviced by a qualified scale technician. Please contact your scale dealer.

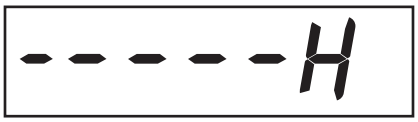
The batteries are running low. When the batteries are running low, this indicator will come on. Replace all of the batteries with new ones.

The batteries are low. When the batteries are too low for accurate operation, this indication will be displayed and the scale may automatically power off. The batteries must be replaced to use the scale.

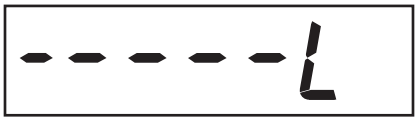
Weight out of range high. When the weighed value is 6 or more divisions heavier than the scale's capacity this message will be displayed. Remove the excess weight from the scale platform.

Weight out of range low. When the weighed value is a few divisions below calibrated zero, this message will be displayed. It is usually displayed when the platform is removed or has something wedged under it. Place the platform on the platform support or remove any objects wedged under the platform

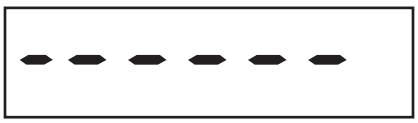
Initial error on startup, high. When the initial weight is heavier than the permissible zeroing range and the ON/→0← key is pressed, this message will be displayed. Remove whatever is on the platform and press the ON/→0← key again.



Initial error on startup, low. When the initial weight is lighter than the permissible zeroing range and the ON/→0← key is pressed, this message will be displayed. It is usually displayed when the platform is removed or has something wedged under it. Place the platform on the platform support or remove any objects wedged under the platform, and press the ON/→0← key again.



Weighing sensor error. When the weight detecting circuitry registers an error, this message will be displayed. Turn the power off and then on again.



VI Troubleshooting and Error Messages

Electronic circuitry error. When the operating circuitry registers an error, this message may be displayed. Turn the power off and then on again.

Electromagnetic disturbance error. This indication is occasionally displayed due to strong static electricity and/or electromagnetic disturbance. Move the scale away from any sources of electromagnetic radiation (motors, generators, power cables, transmitters, etc.) Turn the power off and then on again. If an AC adapter is being used, try using a different power circuit or AC adapter.

VII User Parameters

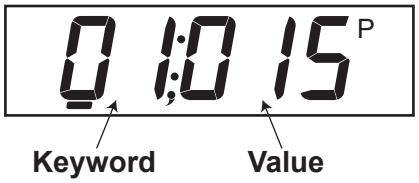
Setting the User Parameters

The DP-6200 user parameters can be changed in user setup mode to disable or change the duration of the auto-off function, to set which units (metric or standard) the scale defaults to when turned on, to set the RS-232C communications parameters and to set the display hold. The User Parameter Table lists the nine keywords, their function and their default values.

If the DP-6200 is configured for legal for trade use (system parameter 40 set to 003, CAL indicator is off), then keypad entry to user paramater mode will be disabled. When the DP-6200 is configured for legal for trade use, then entry to all parameter setting modes requires the scale to be opened and the test jumpers to be shorted to enter Test Mode.

System parameter 40 must be set to 000 or 002 to enable keypad entry to user parameter mode. This will also activate the CAL annunciator, indicating that the scale is not properly configured for legal for trade operation. For more information on setting system parameters and entering Test Mode, please see the DP-6200 Technical Manual.

1) With the scale on, press the ON/→0← and →T← keys to enter the user setup mode. The scale will indicate a keyword followed by a value.



2) To select the desired keyword, use the keys as follows:

ON/→0← - increase keyword by one

ON/→0← + NET/GROSS - decrease keyword by one

Note: See the User Parameter Table on the following page to locate the function to be changed and it's standard value.

Example: To select standard or metric mode default on power up, press the ON/→0← key nine times.

VII User Parameters

3) To change a parameter value, use the keys as follows:

- increase value by one

+

- increase value by ten

- decrease value by one

+

- decrease value by ten

Example: To select the metric mode as default on power up, press the

key to change the value from 000 to 001.

4) Press

to save changes and and advance to the next key-word. Press

to exit the user setup mode.

VII User Parameters

User Parameter Table

Key Word	Std Value	Function	Description
01	015	Auto-off timer	000 Disables auto-off. 001~240 Number of minutes unused to activate auto-off.
02	000	Display hold timer	000 No display hold for changes less than four divisions. 001~030 Display hold duration, in seconds, for changes less than four divisions. 031 No display hold.
03	001	Communication	000 No serial interface. 001 Specified commands acceptable. 002 Sends zero detection. 003 Sends motion detection. 004 Sends continuously.
04	000	Communication data	000 Net weight (1 batch) 001 Net weight, tare weight, gross weight (1 batch) 002 Net weight, tare weight, gross weight (3 batches) 003 Display content (1 batch) 004 Serial printer format (1 batch)
05	000	Communication speed	000 9600 bps 001 600 bps 002 1200 bps 003 2400 bps 004 4800 bps 005 9600 bps 006 19200 bps 007 38400 bps
06	000	Character length	000 8 bits 001 7 bits
07	002	Parity	000 Non 001 Odd 002 Even
08	001	Stop bit length	000 1 bit 001 2 bits
09	001	Default mode	000 kg 001 lb/oz